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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,560	06/29/2001	Thomas Roden	50325-0556	6932

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EXAMINER

LIN, WEN TAI

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/895,560

Applicant(s)

RODEN ET AL.

Examiner

Wen-Tai Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2001 and 09 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters; prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ☒
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/9/04 ☒
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-36 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 8-13, 15-22, 24-34 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Callon[U.S. PGPub 20020131362].

4. As to claim 1, Callon teaches the invention as claimed including: a method for managing a network, the network including a plurality of network elements that are configured to be interconnected to one another, the method comprising:

receiving information about a link state for each network element in the plurality of network elements [paragraphs 5-6];

determining whether any of the plurality of network elements are unreachable, based on the link state information [i.e., a router may determine that certain network elements are unreachable based on the broadcast message containing detected link failure]; and

configuring a management policy for at least one of the network elements, the management policy identifying if any of the plurality of network elements are determined as being unreachable [Abstract: lines 15-17; e.g., the management policy determines how to get around a failed link in the network; note that the network elements that are determined as being unreachable are contained in the "link failure information". Other policy related activities can also be found at paragraphs 43 and 57].

5. As to claim 2, Callon further teaches that configuring a management policy includes communicating with one or more of the network elements to account for any of the plurality of network elements that were detected as being unreachable [paragraph 6; i.e., broadcasting update messages to inform neighboring routers].

6. As to claim 3, Callon further teaches that configuring a management policy includes signaling to an operator interface an indication that one or more network elements are unreachable [paragraph 57; i.e., since the administrator has an active role of manually configuring two routers to exchange link failure information, such information must be signaled to the administrator before manually configuration can be performed].

7. As to claims 4-5, Callon teaches that the method further comprising updating a data structure that includes the link state information for each network element in the plurality of network elements by receiving a broadcast from the neighbor routers [paragraph 6; i.e., the routing table is a data structure containing the link state information].

8. As to claim 6, Callon further teaches that configuring a management policy includes detecting that at least one of the plurality of network elements is unreachable, and then identifying which one of the network elements in the plurality of network elements are unreachable [paragraphs 39 and 44; i.e., when a router receives a link failure message, that is the time the router “knows” (or detects) that at least one of the plurality of network elements is unreachable. However, it does not know which network element is unreachable until the message is opened or verified and the Instance ID field read into the system].

9. As to claim 8, Callon further teaches that configuring a management policy includes instructing a management device to configure the management policy for at least one of the plurality of network elements [paragraph 43; i.e., by default the administrator must have a management device in order to establish or modify any of the policy related configuration parameters].

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10. As to claim 9, Callon further teaches that the link state information for each network element describes a connection between that network element and at least one other network element designated to be connected to that network element [paragraphs 3 and 5].

11. As to claim 15, Callon teaches the invention as claimed in claims 1 and 8-9 above. Callon further teaches detecting if any of the network elements are unreachable using link state information provided by the network elements operating the link state protocol [paragraph 6].

12. As to claim 19, Callon further teaches that detecting if any of the network elements are unreachable includes detecting a break in the plurality of network elements being interconnected to one another [i.e., by default, the failure in a link includes a (physical) break in the link].

13. As to claims 10-13, 16-18 and 20-21, since the features of these claims can also be found in claims 1-6, 8-9, 15 and 19, they are rejected for the same reasons set forth in the rejection of claims 1-6, 8-9, 15 and 19 above.

14. As to claim 22, Callon further teaches that operating the plurality of network elements includes operating the plurality of network elements using an Open Shortest Path First (OSPF) protocol [paragraph 30].

15. As to claim 25, Callon teaches the invention as claimed including: a computer system for managing a network, the network including a plurality of network elements, the computer system comprising:

a processor [15, Fig.3; i.e., by default the controller must have a processor];

a network interface to receive link state information for the plurality of network elements [13, Fig.3] and

a storage medium coupleable to the processor [17-18, Fig.3], the storage medium carrying instructions for determining whether any of the plurality of network elements are unreachable, based on the link state information, and for configuring a management policy for at least one of the network elements, the management policy identifying if any of the plurality of network elements are determined as being unreachable [Abstract].

16. As to claims 24, 26-34 and 36, since the features of these claims can also be found in claims 1-6, 8-13, 15-22 and 25, they are rejected for the same reasons set forth in the rejection of claims 1-6, 8-13, 15-22 and 25 above.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 7, 14 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callon [U.S. PGPub 20020131362], as applied to claims 1-6, 8-13, 15-22, 24-34 and 36 above.

19. As to claim 7, Callon does not specifically teach configuring a management policy includes detecting that at least one of the plurality of network elements is unreachable, and then polling one or more selected network elements in the plurality of network elements to identify which one of the plurality of network elements are unreachable.

However, Callon teaches that in order to avoid fake link failure messages being created to flood the network for denial of service attempt, a verification process is established to authenticate the message senders [paragraphs 44-45]. It is obvious that the verification process as described in paragraphs 44-45 includes an act of polling because the sender would be challenged for authentication before the message is opened or decrypted for further identification of the failed link.

20. As to claim 14, Callon does not specifically teach accessing the link state information includes declaring one of the plurality of interconnected elements as a

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second router to the first router. However, Callon teaches that a router do not attempt to use routes that include the failed link [Abstract: lines 15-17].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to choose an alternative router [i.e., a second router] if the first router is determined to include the failed links because the first router needs to be put in a recovery state for removing or repairing the failed links [Abstract: lines 7-10].

21. As to claim 35, since the features of this claim can also be found in claims 1-22, 24-34 and 36, it is rejected for the same reasons set forth in the rejection of claims 1-22, 24-34 and 36 above.

22. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Callon [U.S. PGPub 20020131362], as applied to claims 1-22 and 24-36 above, further in view of Kohler et al. (hereafter "Kohler") [U.S. PGPub 20030185153]

23. As to claim 23, Callon does not specifically teach operating the plurality of network elements includes operating the plurality of network elements using an Enhanced Internet Gateway Routing Protocol (EIGRP) protocol.

However, in the field of similar endeavor, Kohler [U.S. PGPub 20030185153] teaches that EIGRP is can be used for routing of data in networks which are under a common network administration one of the most popular routing protocols [Kohler [U.S. PGPub 20030185153]: paragraph 4].

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It would have been obvious to one of ordinary skill in the art at the time the invention was made that EIGRP may be adopted as an optional routing protocol in Callon's system because the latter adopts a wide variety of routing protocols [Callon: paragraph 30].

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Aukia et al.	[U.S. Pat. No. 6594268];
Croslin et al.	[U.S. Pat. No. 5737319];
Angelico et al.	[U.S. Pat. No. 6192053];
Cunningham et al.	[U.S. Pat. No. 6219786];
Simpson et al.	[U.S. PGPub 20020078232];
Iwata	[U.S. Pat. No. 5687168]; and
Cain	[U.S. Pat. No. 6650626].

25. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 days from the mail date of this letter. Failure to respond within the period for response will result in ABANDONMENT of the application (see 35 U.S.C. 133, M.P.E.P. 710.02, 710.02(b)).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (703)305-4875. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703)305-8498. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:


(703)872-9306 for official communications; and

(703)746-5516 for status inquires draft communication.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Wen-Tai Lin

September 20, 2004


9/20/04